CHAPTER VI
CONCLUSIONS AND SUGGESTIONS

This chapter is a closing chapter containing conclusions and suggestions for the research. The conclusion contains the results obtained from the calculations and analysis of this research. Suggestions contain actions that need to be developed if further research related to this research is carried out.

6.1 Conclusions

Based on the calculations and analysis carried out, it is found that there is various optimal preventive replacement between each component in the screw press and digester machine. The longest optimal preventive replacement age is on component shaft in screw press machine number six as 4400 operation hours, and the shortest optimal preventive replacement age is on component adjusting cone bolt in screw press machine number three as 240 operation hours. The components in each machine, are grouped into modules. There are three modules in each machine number one, two, and three. Machine four only has one module. Machine five and six has two modules. The component that are grouped in the same module indicates the preventive replacement for the component that can be replaced at the same time. From the proposed maintenance policy above, the downtime reduction for machine one until six consecutively are 47.17%, 31.23%, 41.05%, 37.40%, 44.79%, and 42.96%. In total, the downtime reduction for all the screw press and digester machine is 40.83%.

6.2 Suggestions

The suggestions that can be put forward from this final assignment for further research at PT SMART Tbk Padang Halaban Mill are as follows:

1. This component replacement planning for the screw press and digester machine in PT SMART Tbk Padang Halaban Mill can be applied to the maintenance system in the company. The accuracy of the replacement planning can be improved by taking more data in order to be able to have sufficient data to determine the distribution. So that the selected distribution and parameter can be more accurate.
2. The maintenance method using modules can be used continuously provided that component replacement in the same module is carried out simultaneously, either in preventive or failure replacement situations.
3. Further research is also recommended to carry out maintenance research on all parts (including electrical parts) of the screw press and digester machines.